

CLAIMS

1. Device for immobilising with respect to a fixed element (1, 34) a threaded support pin (21) screwed in a bone part (3, 3a, 3b) along an axis (yy'), characterized in that it comprises a locking sleeve (13) which is connectable by screwing of the fixed element (1, 34, 7), which is provided with an axial bore (19) which receives the pin (21), the axis (zz') of the threading of this sleeve is angularly and/or laterally offset in relation to the axis (yy') of the pin (21) when the latter is in place on the bone part (3, 3a, 3b), and/or the axis of the bore (19) of the locking sleeve (13) is angularly and/or laterally offset in relation to the axis of the threading (6).
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2. Device according to Claim 1, characterized in that an intermediate piece (7) adapted to be fixed on the fixed element (1), is disposed between the latter and the locking sleeve (13).
3. Device according to Claim 1, characterized in that the intermediate piece is constituted by a sleeve (7) provided with an external threading (8a) by which it is screwed in the fixed element (1), the axis (zz') of the external threading (8a) of this intermediate sleeve merging with the axis (yy') of the pin (21) when the latter is in place on the bone part (3, 3a, 3b).
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4. Device according to one of Claims 1 to 3, characterized in that the fixed element is constituted by a plate (1) which is applied against the bone part (3) and is intended to be connected thereto.
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5. Device according to one of Claims 3 or 4, characterized in that the threaded part (13a) of the locking sleeve (13) extends outwardly by a

gripping element (13b) for driving the latter in rotation, and a zone of lesser resistance (17) with controlled shear rupture level is provided between said threaded part (13a) and the gripping element (13b).

6. Device according to Claim 5, characterized in that the intermediate sleeve (7) comprises in its upper part a circular boss (9) forming stop, intended to come into abutment on the plate (1), particularly in a recess (10) therein.

7. Device according to Claim 6, characterized in that the circular boss (9) comprises a series of orifices (11) intended to ensure gripping and drive in rotation thereof in order to block/unblock the intermediate sleeve (7) on the plate (1).

8. Device according to Claim 1, characterized in that the fixed element is constituted by a support (1a) receiving intermediate pieces (30) which are mounted mobile, on the one hand, along the profile of the support and, on the other hand, in rotation, fixing means (36) ensuring the immobilisation of the intermediate pieces (30) with respect to the fixed element (1a).

9. Device according to Claim 8, characterized in that:

- the fixed element is constituted by a rail (1a) of which the internal profile will be of hemispherical shape and whose base will be pierced with a longitudinal slot (32) adapted to be traversed by the threaded pins (21),

20 - the intermediate pieces are constituted by spheres (34) adapted to be positioned at any point of the rail (1a),

- it comprises an upper cover (36) of hemispherical internal profile of which the apex is pierced with a

longitudinal slot (38) adapted to be traversed by the threaded pins (21),

- it comprises tightening means (40a, 40b, 42) adapted to apply the spherical intermediate pieces (34) against the rail (1a) in order to immobilise
5 them both in translation and in rotation with respect thereto.